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Date: _____

ENVIRONMENTAL ASSESSMENT
MINING AND RECLAMATION PLAN
ANACONDA COPPER COMPANY
PUEBLO OF LAGUNA URANIUM LEASE 1
NJ-95

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POL-EPA01-0006200

Confidential Claim Retracted

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Date: 9/20/13



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ENVIRONMENTAL ASSESSMENT

MINING AND RECLAMATION PLAN
for the
NJ-45 Mine
ANACONDA COPPER COMPANY
PUEBLO OF LAGUNA URANIUM LEASE 1
Sections 26 and 35, Township 11 North, Range 5 West, NMPM
Valencia County, New Mexico

United States Geological Survey
Conservation Division
Albuquerque District Mining Office
South Central Region
P. O. Box 69
Albuquerque, New Mexico 87103

April 22, 1981
John M. Andrews, Jr.
Environmental Scientist

INTRODUCTION

This environmental assessment employs a procedure called "adoption" which is defined in the regulations of the Council on Environmental Quality (CEQ) (see 40 CFR 1506.3). Briefly, this procedure allows an environmental assessment previously prepared for a proposed action to be used as the principal decision making and NEPA compliance document for a newly proposed action when the two actions are similar. Although the CEQ "adoption" regulations relate specifically to environmental impact statements, these regulations also state that "any environmental document in compliance with NEPA may be combined with any other agency document to reduce duplication and paperwork" (see 40 CFR 1506.4). The purpose of employing this procedure is to comply with the CEQ's mandate to "reduce excessive paperwork" (40 CFR 1500.4).

This environmental assessment serves as an adoption document and will discuss: the justification for adoption; the differences between the action covered by the original environmental assessment and the proposed action; the site specific impacts of the proposed action; the clearances and concurrences needed for the proposed action; and the viable alternatives open to the decision makers. The decision makers are to use both the adopted environmental assessment and this document to make the NEPA related decisions.

TABLE OF CONTENTS

<u>TITLE</u>	<u>PAGE</u>
I. ADOPTION JUSTIFICATION	1
II. DESCRIPTION OF THE PROPOSED ACTION	3
III. ENVIRONMENTAL CONSIDERATIONS OF THE PROPOSED ACTION	5
A. Discussion of Project Differences	5
B. Other Environmental Considerations	8
IV. ALTERNATIVES	9
A. No Action or Disapproval	9
B. Open-pit Mining	9
C. Approval of The Plan as Submitted	9
D. Approval of The Plan with Stipulations	9
V. UNAVOIDABLE ADVERSE EFFECTS	10
VI. COMMENTS AND RESPONSES	10
VII. SUMMARY AND CONCLUSIONS	10
VIII. DETERMINATION	14
IX. APPENDICIES	
A. Clearances	
Archaeological	
Endangered Species	
B. Pueblo of Laguna and Bureau of Indian Affairs Concurrence	
C. Related Correspondence	

TABLE OF CONTENTS (Continued)

- D. Adopted E.A. (Under Separate Cover)
- E. Mine Plan (Under Separate Cover)
- F. Proposed Stipulations

FIGURES

	<u>PAGE</u>
Figure 1: NJ-45 Mine - Plan View	4
Figure 2: Location Map	6

I. Adoption Justification

The proposed action is the approval of a small, short-term underground uranium mine, the NJ-45 Mine, that would be situated within the limits of the large Jackpile-Paguate Mine. The Jackpile-Paguate Mine is located on the Laguna Indian Reservation, and Anaconda Copper Company has produced uranium ore by both open-pit and underground methods from the Mine since 1952. Recent weakening of the uranium market has caused Anaconda to stop open-pit operations, and the NJ-45 Mine would allow recovery of ore reserves originally scheduled for open-pit mining.

The Jackpile-Paguate Mine is located within contiguous Pueblo of Laguna Uranium Leases 1,4 and 6. These leases contain approximately 7500 acres in Townships 10 and 11 North, Range 5 West, NMPM, Valencia County, New Mexico. The Mine consists of 1000 acres of open-pits, 2000 acres of waste dumps and ore stockpiles, four abandoned underground mines, and one active underground mine. Another underground mine has been approved but not developed due to poor economic conditions. As previously mentioned, open-pit operations at the Mine have ceased, but limited underground mining is expected to continue for a short time. Reclamation of the land disturbed by the mining activities will be conducted upon completion of the EIS now being prepared by the Geological Survey.

One of the abandoned underground mines preceded NEPA, but the Geological Survey has prepared EA's on the other five underground mines. Of these five mines, three were virtually identical to the proposed NJ-45 Mine, and all five EA's resulted in determinations that the proposed actions did not constitute major Federal actions significantly affecting the quality of the human environment in the sense of NEPA. Upon proposal of the NJ-45 Mine, it was determined that preparation of another separate EA would be contrary to the CEQ's mandate to "reduce excessive paperwork." The Geological Survey therefore decided to adopt one of the previously prepared EA's.

The EA being adopted is the "Environmental Analysis, PW2-PW3 Mine Project - The Anaconda Company." This EA (dated April 29, 1977) was prepared by the Carlsbad Mining Office and reviewed by the Geological Survey's Area and Regional Offices. It contains approximately 50 pages plus appendices and thoroughly assesses all impacts of the PW2-PW3 Mine. The Area Mining Supervisor and Conservation Manager determined that approval of the PW2-PW3 Mine did not constitute a major Federal action significantly affecting the quality of the human environment in the sense of NEPA, and the mine plan was approved January 11, 1978.

The proposed NJ-45 and the PW2-PW3 Mines are determined to be substantially the same because they share the following characteristics:

1. Both are located within the same mine complex.
2. Both lie within the same lease, have the same lessor, lessee, and operator.
3. Both involve conventional room-and-pillar mining of uranium ore in the same host formation.
4. Both use adit entries from the bottoms of mined-out open-pits.
5. Both are of the same general magnitude in size and environmental impact.
6. Both mines have nearly identical existing environments.

The differences between the NJ-45 and PW2-PW3 are as follows:

1. The proposed NJ-45 Mine would use four adits whereas the PW2-PW3 operation used only one.
2. The NJ-45 Mine would use three ventilation shafts while the PW2-PW3 used breakthroughs in the open-pit highwall to provide ventilation.
3. Although the two mines are within the open-pit, they impact different portions of the surface.
4. The status of the overall mine complex is different now than when the PW2-PW3 Mine was approved.
5. New Federal regulations and Conservation Division Guidelines for EA preparation have been issued since the PW-2-PW3 Mine was approved.

Each of these differences will be discussed in this adoption document.

II. Description of the Proposed Action

The proposed action is the approval of a small underground mine, the NJ-45 Mine, within the Jackpile-Paguate Mine. The NJ-45 operation would enter the subsurface via four adits in the east highwall of the North Jackpile open-pit. The ore body would be mined by conventional room-and-pillar methods using diesel-powered trackless equipment.

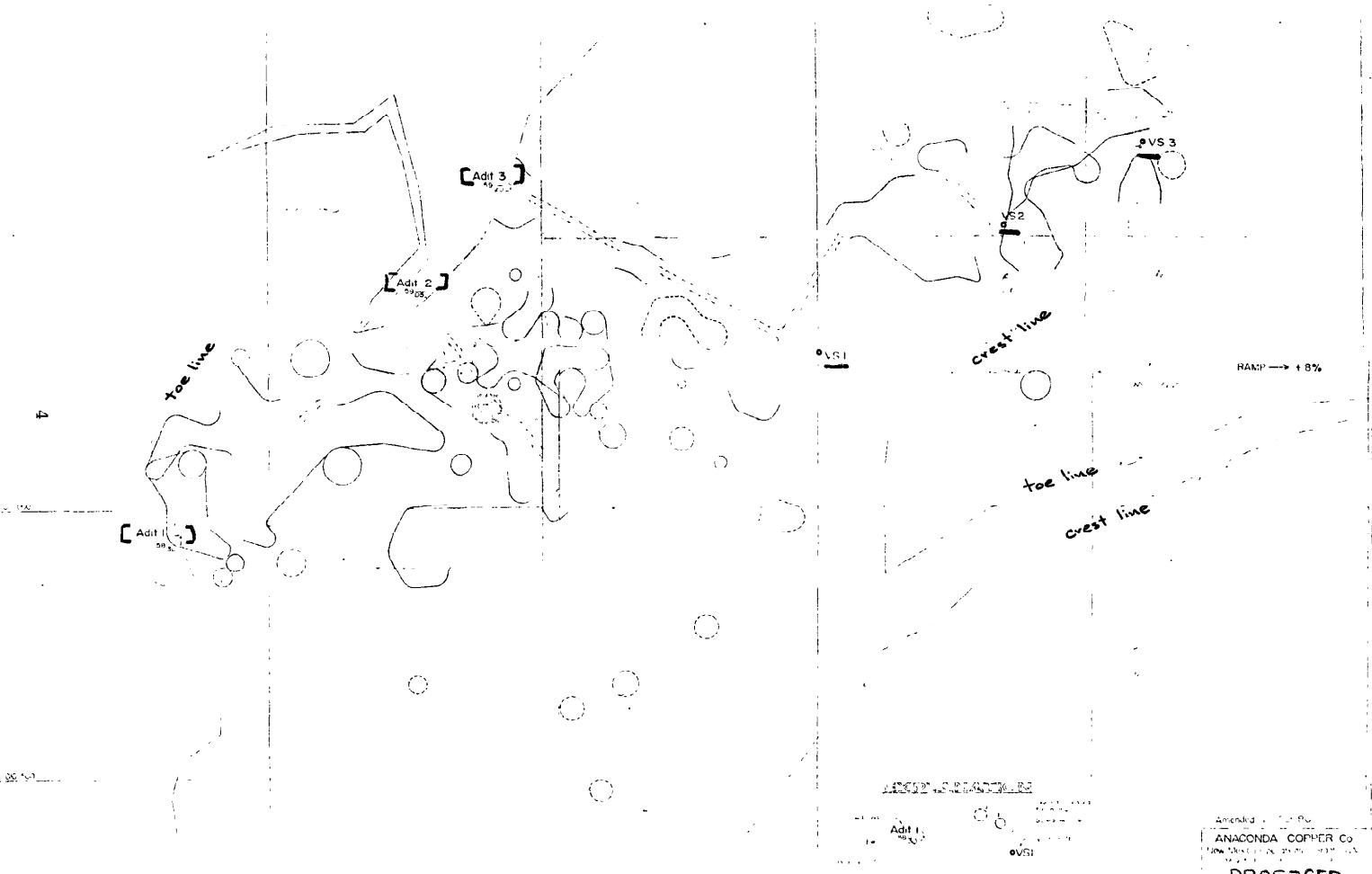
The NJ-45 ore reserve is estimated from surface drilling to weigh about 251,000 tons with an average grade of about 0.20% U_3O_8 . Development work would require about 5,000 feet of access drifts and would generate about 31,000 tons of waste. Both ore and waste would be hauled to the surface by 5-ton Getman trucks. At the surface, the waste would be dumped in the bottom of the mined-out open-pit, and the ore would be hauled to existing stockpiles according to its grade.

Ventilation would be provided by three vent holes drilled on the open-pit benches (see Figure 1) and the four adit portals. If further ventilation was needed, a southwest crosscut from Adit 2 would be extended and breakthrough to the surface at the open-pit highwall.

Water inflow from the Jackpile Sandstone is expected to be about 50 gallons per minute (gpm), about the same as that into the PW2-PW3 Mine. Some of the water would be used for drilling in the Mine and the rest would be collected in a sump near the adit portals in the pit bottom. The water from the surface sump would be used for dust control on the NJ-45 access roads and the excess allowed to evaporate.

The NJ-45 Mine would use the present P-10 Mine office, change room and locker facilities, and surface maintenance and repair shops. New facilities needed at the NJ-45 site would be a temporary office, repair shop, facilities for handling ore and waste, and the water sump. Potable water would be trucked to the site. Electric power would be supplied by extending an existing power line in the open-pit.

The project is expected to last two years and employ a maximum of 112 people during the second year. Average annual ore production would approximate 125,000 tons.



Figure

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Reclamation of the project would be accomplished during overall reclamation of the entire Jackpile-Paguate Mine. Anaconda submitted a comprehensive plan on this reclamation September 11, 1980, and in December, 1980, the Geological Survey decided to prepare an EIS on the reclamation plan. The EIS will consider reclamation of the entire mine area including the small underground mines within the open-pits. Reclamation of the NJ-45 Mine would follow the recommendations of the EIS.

III. Environmental Considerations of the Proposed Action

A. Discussion of Project Differences

1. Entry Differences

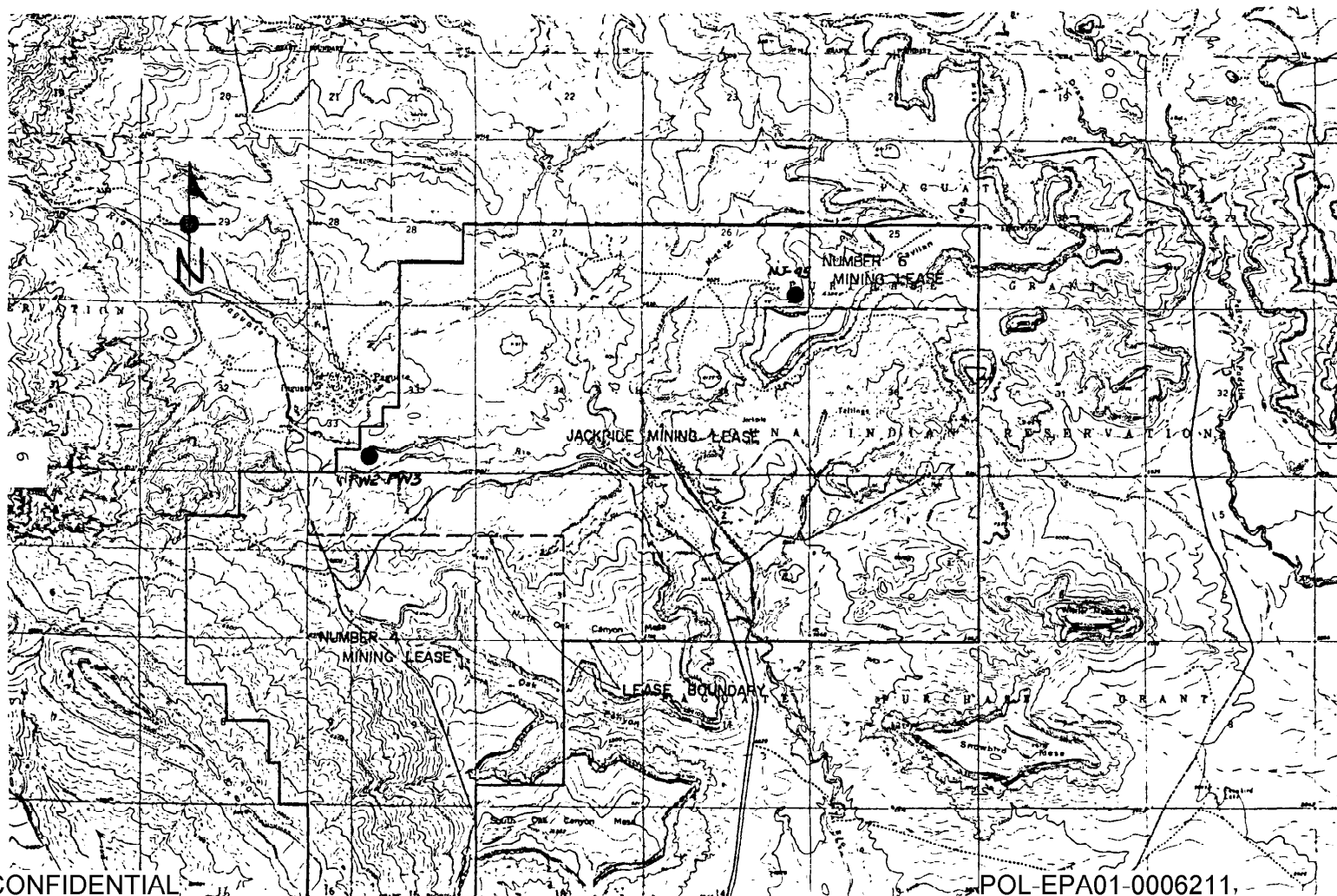
The NJ-45 Mine would use four adits whereas the PW2-PW3 used only one; however, since the adits are in the wall of the pit, they impact an area that has already been disturbed by open-pit mining. The adits themselves are a minor disturbance compared to open-pit mining or conventional shaft sinking. The additional adits would not cause any problems as far as the eventual reclamation of the mine area is concerned.

2. Ventilation Differences

The NJ-45 Mine would need three ventilation shafts while the PW2-PW3 used breakthroughs in the pit highwall. The difference here is one of location rather than severity of impact. The breakthroughs impacted the pit highwall while the ventilation shafts would affect the open-pit benches. In both cases, the areas had been previously disturbed by the open-pit operations so new impacts would be negligible.

3. Site Differences

The NJ-45 Mine would impact a different part of the mine area than the PW2-PW3 (see Figure 2). However, archeological clearance has been granted for the whole operation (see appendix A). It is not likely that the NJ-45 Mine would affect any new and important archeologic sites since the area involved has already been disturbed by open-pit mining.



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Surface subsidence was a concern with the PW2-PW3 Mine because the underground workings came within 50 feet of State Highway 279. As a stipulation to approval, Anaconda was required to place a subsidence monitoring grid over the portion of the Highway closest to the mine workings. Analysis of the monitoring indicates that the PW2-PW3 mining had no effect on the Highway.

Because of the minimal size of the underground excavations, subsidence is not expected to be a problem at the NJ-45 Mine. The NJ-45 Mine would be far removed from Highway 279 and other permanent structures and any surface subsidence would be confined to the open-pit area which has already been disturbed by mining.

The effects of subsidence and mitigating measures will be discussed in the EIS, and this discussion will consider the potential impacts of all the underground workings, not just the NJ-45.

4. Differences in the Status of the Overall Mine Complex

When the PW2-PW3 plan was approved, open-pit mining was still underway. Since that time, the price of uranium has dropped considerably, and Anaconda was forced to stop the open-pit operations sooner than it had planned.

This situation makes the NJ-45 Mine more important as far as the Laguna people are concerned. The Jackpile Mine has been in operation for 29 years, and the Pueblo of Laguna will soon have to deal with loss of royalty income and employment opportunities. Because of the depressed uranium market, the entire mine will be abandoned sooner than expected. The NJ-45 Mine would extend royalty income and reduce the impact of large-scale unemployment to a minor degree (approval of the proposal would not affect the number or viability of any alternative being addressed by the EIS being prepared on reclamation of the site).

5. Differences in EA Preparation

Since the PW2-PW3 Mine was approved, there have been changes in the way EAs are prepared. None of these changes invalidates the PW2-PW3 EA, the document being adopted. Changes in procedures require an assessment of the proposal's cumulative impact; a statement as to possible impacts on floodplains and wetlands; endangered species clearances; and a "Summary and Conclusion" section.

This adoption document will include those items not included in the PW2-PW3 EA.

B. Other Environmental Considerations

To comply with the revised EA guidelines and procedures, this section will present a brief discussion of those required elements not included in the PW2-PW3 EA.

1. Cumulative Impacts

The NJ-45 Mine would lie within the already disturbed Jackpile-Paguate Mine. The small size and short time frame of this project would make its impacts negligible, individually or cumulatively.

2. Floodplains and Wetlands

The Rio Paguate flows through the Jackpile-Paguate Mine, but the NJ-45 Mine would be about one mile northwest of this perennial stream. Accordingly, the proposed project does not lie in a floodplain or wetland as defined by Executive Orders 11988 and 11990.

3. Endangered Species

No Federally or State listed endangered or threatened species have been found in the Jackpile-Paguate Mine area (Appendix A).

IV. Alternatives

A. No Action or Disapproval

This alternative would eliminate the operational impacts of the proposed project, all of which are judged to be insignificant both individually and cumulatively. Since one purpose of this project is to reduce the loss of royalty income and employment, disapproval of the NJ-45 Mine would be counterproductive as far as the Laguna people are concerned.

B. Open-Pit Mining

Open-pit mining offers the advantage of nearly complete recovery of the ore reserve. However, present market conditions and increased operating costs have made open-pit mining in the NJ-45 area uneconomical. Open-pit mining would also cause more environmental impact although in this case that could be considered a moot point.

C. Approval of the Plan as Submitted

If the plan were to be approved as submitted, it would cause the impacts discussed in this EA and the adopted PW2-PW3 EA.

D. Approval of the Plan with Stipulations

The NJ-45 Mine is located within the Jackpile-Paguate Mine, and the reclamation of the entire mine is now the subject of an EIS. If the NJ-45 Mine is approved, it should be with the stipulation that all reclamation would be in accordance with the recommendations of the final EIS. If the NJ-45 Mine were reclaimed as recommended in the EIS, all environmental impacts would be mitigated to the greatest possible degree.

V. Unavoidable Adverse Effects

The proposed operations would cause a certain amount of dust, but this would not be a major impact and could be further minimized by using water. The mine's atmosphere would be contaminated by blasting fumes, radon gas, and exhaust gases, but the ventilation system and frequent monitoring by the appropriate regulatory agencies would maintain this contamination within acceptable limits.

Any noise created by the operations would be insignificant due to the absence of any nearby residences and the small amount of equipment involved.

The extraction of the NJ-45 ore deposits would require the withdrawal of a small amount (c 50gpm) of ground water from the Jackpile Sandstone aquifer. This would not significantly affect the availability of ground water in the area. In addition, ore extraction would result in radiological contamination of the ground water seeping into the mine workings during the productive life of the mine and, to a lesser degree, following the termination of all mining operations with minor potential for migration within the Jackpile Sandstone. During the mine's life, the mine water would be impounded in the sump or used for dust control on existing mine roads. No water from the mine would be discharged off the property.

VI. Comments and Responses

The only comments received on the NJ-45 Mine were letters of approval dated November 21, 1980, from the Southern Pueblos Agency, BIA and March 2, 1981, from the Pueblo of Laguna Council.

VII. Summary and Conclusions

The data and discussion contained in this EA and the adopted EA for the PW2-PW3 Mine indicate that approval of the proposed NJ-45 Mine would not cause any significant impacts on the quality of the human environment. This conclusion was reached by comparing the NJ-45 Mine

with the previously approved PW2-PW3 Mine. The NJ-45 Mine impacts would be no greater, and in some cases less than those of the PW2-PW3 Mine, a project that did not constitute a major Federal action significantly affecting the quality of the human environment in the sense of NEPA.

Summary of Impacts

		<u>Key</u>
		NI - No impact
		NS - No significant impact
<u>Parameter</u>	<u>Severity of Impact Level/Degree of Significance</u>	<u>EA Page and Paragraph Reference</u>
1. Beneficial and/or adverse effects.	NS	page 7 - paragraph 5
2. Public health & safety.	NS	page 5 - paragraph 2,3,4 page 7 - paragraph 1,2,3
3. Unique characteristics of the geographical area.	NS	page 8 - paragraph 4,5
4. Effects highly controversial.	NS	page 10 - paragraph 4 Appendix A
5. Highly uncertain effects or unique or unknown risks.	NS	page 2 - paragraph 2,3 page 5 - paragraph 2,3,4 page 7 - paragraph 1,2,3
6. Establishes precedent for future actions or is a decision in principle about future action.	NS	page 2, paragraph 2

Summary of Impacts

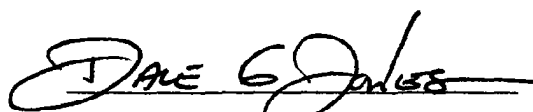
<u>Parameter</u>	<u>Severity of Impact Level/Degree of Significance</u>	<u>EA Page and Paragraph Reference</u>
7. Assessment of cumulative actions and impacts thereof. Note 40 CFR 17.	NS	page 8 - paragraph 3
8. Effects on districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic Places or may cause loss or destruction of significant scientific, cultural historical resources.	NI	page 5 - paragraph 4 Appendix A
9. Effects on endangered or threatened species or their habitat that have been determined to be critical under the Endangered Species Act of 1973.	NI	page 8 - paragraph 5 Appendix A
10. Threatens a violation of Federal, State, or local law or requirements imposed for the protection of the environment.	NI	page 10 - paragraph 4
11. Other related NEPA and environmental documents (name).	Environmental Analysis PW2-PW3 Project The Anaconda Company April 29, 1977	

VIII. Determination

I determine that the proposed action, as modified by Alternative D on page 9, does not constitute a major Federal action significantly affecting the quality of human environment in the sense of NEPA, Section 102(2)(9c).

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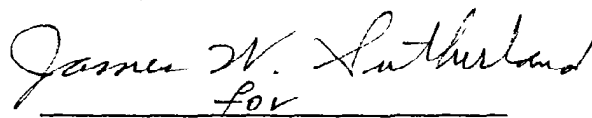


Dale C. Jones
District Mining Supervisor

I concur:

APR 30 1981

Date



Edward T. Sandell, Jr.
Deputy Conservation Manager-Mining

APPENDIX A

Clearances